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DEPARTMENT OF BACTERIOLOGY,
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THE HOSPITALS CENTRE,
BIRMINGHAM, 15.

21/10/48

Dear Dr. Hedderberg,

Thank you for your letter, and the reprints which I shall be very pleased to have.

I, of course, concur with most of your criticisms. I have attempted to explain the observed phenomena but I wouldn't go bail on any of my suggestions.

I think that the "chromosomes" are more correctly chromosome complexes. Bacteria do have resting nuclei, of a

number of types, some of which I am now trying to describe, but they seem to remain in the mitotic condition for an extended period during the logarithmic phase of active cell division. This is unusual, I will admit, but surely not inconceivable.

As regards the "trinucleate" condition. This is based upon actually counting the little beggars. This is difficult in the original, goddam difficult in a photograph, and impossible in a photogewise reproduction.

I have enclosed a few original prints for you to compare with my tracings.

May I also add — what is, perhaps, another glimpse of the obvious — that I am not a geneticist.

When I have completed my present work upon the resting nucleus, and the



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sexual processes (if such they are) connected with it, I will send you a note of my results, and subsequently some reprints, if anybody can be found rash enough to print it.

I sincerely wish that I could manage to get upon collaborating terms with a geneticist who might be prepared to tackle these problems.

That sexuality does exist in bacteria, I am convinced. I think that it takes a very varied form in different-

groups, and may be repressed at times.

After all, the fungi have a sufficient diversity of modes of sexuality, within their group.

In conclusion, may I ask if you have read my paper. J. Gen. Microbiol. 2. 83. of which I have, unfortunately, no reprints left. This goes into the question of "chromosome" doubling, but antedates my belief that they are always paired; so for "single chromatinic body", read:- "one pair of $2x2x2$ "

Not to be confused ~~the~~ with the old English "pair of nmentionables" (Anglic trousers, Amer. pants.) Pray forgive my, unpremeditated flippancy,

Yours sincerely,

K. A. Bisset